

CLAIMS

1. Biosensor, characterised in that at least one carbohydrate derivative with ability to bind a protein, virus or a cell in a sample is bound to a surface in the biosensor.
2. Biosensor according to claim 1 above, characterised in that the carbohydrate derivative is chemically bound or is bound via adsorption to a surface which constitutes one part of the biosensors signal transducer part.
3. Biosensor according to claim 1, where the carbohydrate part of the carbohydrate derivative contains at least one component consisting of hexosamine-, fucose-, galactose- glucose-, mannose-, xylose-, N-acetylneuraminic acid residue or an analog thereof.
4. Biosensor according to claim 1, where the carbohydrate part of the carbohydrate derivative contains at least one component consisting of hexosamine-, fucose-, galactose- glucose-, mannose-, xylose-, N-acetylneuraminic acid residue or an analog thereof, which has been derivatised in at least one of their hydroxyl groups or amino groups with an organic or inorganic group.
5. Biosensor according to one or more of the claims above, in which the carbohydrate derivative contains at least one O-, N-, S-, or C-glycosidically bound aglycon.
6. Biosensor according to one or more of the claims above, in which the aglycon part of the carbohydrate derivative contains at least one alifatic or aromatic compound.
7. Biosensor according to one or more of the claims above, in which the aglycon part of the carbohydrate derivative contains an amino acid-, peptide- or protein component.
8. Biosensor according to one or more of the claims above, in which the carbohydrate derivative consist of a glycoprotein or a neoglycoprotein which is bound covalently or via adsorption to a surface which consist of the signal

10.

transducing part of the biosensor.

9. Biosensor according to claim 1, in which the biosensor is an optical biosensor which gives a signal change at the binding of a protein, a virus or a cell to a surface in the biosensor.

10. Biosensor according to claim 9, in which the optical biosensor use surface plasmon changes, ellipsometri, reflection measurement or polarisation measurement.

11. Biosensor according to claim 1, in which the biosensor is based on a piezoelectric crystal, electrochemical electrode or a thermistor.

12. Biosensor according to claim 1, in which the carbohydrate is an oligosaccharide or a derivative thereof which is bound via an aglycon to a surface of the biosensor.

13. Biosensor according to claim 1, in which the carbohydrate is an oligosaccharide or a derivative thereof which is bound via an aglycon to a gold surface of the biosensor.

14. Method to bind a carbohydrate or a derivative thereof to a gold surface, characterised in that the surface first is coated with a thiol compound which contain an organic group which can be used for chemical binding of a carbohydrate or a derivative thereof.

15. Gold surface modified with a carbohydrate or a derivative thereof.

16. Use of biosensor according to claim 1 for determination of or analysis of a protein, a virus or a cell.

PCT/SE94/00343